

APPENDIX B

```
AREA .. SUM(I,A(I)) =E= 0;  
VELOCITY(VINDX) .. VEL(VINDX) =E= VSCALE *  
5 SUM(I$(ORD(I) LE ORD(VINDX)), A(I));  
POSITION .. SUM(I,VEL(I)) =E= FINALPOS * SCALEFACT;  
VLIMITP(I) .. SUM(VINDX$(ORD(VINDX) LE ORD(I)), A(I-  
(ORD(VINDX)+1))*(VOLTS(VINDX)+KBACK*VSCALE))  
=L= VOLTLIM;  
10 VLIMITN(I) .. SUM(VINDX$(ORD(VINDX) LE ORD(I)), A(I-  
(ORD(VINDX)+1))*(VOLTS(VINDX)+KBACK*VSCALE))  
=G= -VOLTLIM  
  
% A(I) are the current commands at time T(I) spaced equally at time DT.  
15 % VOLTS(VINDX) is a table of voltages representing the unit pulse  
response to  
% a unit output in current command. VOLTLIM is the voltage limit at  
saturation.
```